

Effect of Coaching Program on Parents' Awareness regarding Caring of their children with Hearing Loss

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Abstract

Background: The most common sensory deficit in children today is hearing loss. It can cause significant adverse effects on the acquisition of speech and language, academic achievement as well as social and emotional development. **Aim of the study:** This study aimed to determine the effect of a coaching program on parents' awareness regarding caring of their children with hearing loss. **Research design:** A quasi-experimental research design was utilized to accomplish the aim of this study. **Setting:** The study was conducted at Alshamla Audiology clinics of Tanta University Hospital and Audiology Clinic of International Teaching Hospital, in Tanta City. **Subjects:** A convenient sample composed of 150 parents having children suffering from hearing loss. **Tools of data collection:** **Tool (1)** Interviewing questionnaire about ADHD, **Tool (2)** Parents' reported practices about their children with ADHD and **Tool (3)** Parents' attitude to deafness scale. **Results:** The majority of the studied sample (75%) had poor level of knowledge before the coaching program implementation, which improved for most of them (90%), to have good knowledge immediately post and at the follow up phases of coaching program implementation. While, most of parents (90%) had unsatisfactory level of practice before the coaching program, also the same percent of them (90%) had satisfactory practice immediately post and at follow up phases of coaching program. Also, the majority of the studied parents (73.3% and 66.7%) showed positive attitude about caring of their children with hearing loss after coaching program implementation. **Conclusion:** The study findings concluded that, there are significant improvements in parents' total knowledge, reported practices and attitude regarding caring of their children suffering from hearing loss after the implementation of coaching program than before. **Recommendations:** Periodical coaching programs should be provided for parents of children with hearing loss for continuous education.

Key words: Coaching Program, Parents' Awareness, Children, Hearing Loss.

Introduction

Deafness is the general name for hearing loss (HL). It is a hidden handicap; it is difficult to determine a child with hearing loss until interacting with or noticing hearing aids. Hearing loss or deafness is a serious disabling condition worldwide. Congenital and acquired HL have a variety

of etiologies, including meningo-encephalitis, otitis media and malnutrition (mostly a lack of vitamin A and iodine), and these mainly affect poor families. The morbidity and burden of HL on parents and their children are enormous ^[1, 2]. For children, learning spoken language,

performing academically and engaging in social works depending on hearing abilities are the most burdens, as a barrier to education and social integration is hearing difficulty. Around 360 million individuals (5% of the world's population) suffering from HL, which is considered disabling; of these, just about 32 million are children. Approximately 60% of childhood HL could be avoided through effective preventative measures ^[3,4].

Non-genetic causes of HL include birth circumstances such as hypoxia, low birth weight, and hyperbilirubinemia; diseases as meningitis, measles, and mumps; infections during pregnancy such as, Cytomegalovirus (CMV), rubella, and toxoplasmosis; and head injuries. No matter the source, untreated HL from birth or infancy affects a child's ability to speak, hear, learn, and develop socially and emotionally ^[5,2].

The public health care system includes screening for the early detection of health disorders like HL or any problem. The phrase screens mean all types of exams without taking accuracy or speed into account. According to this definition, an investigation is a part of a public health management process that is started by an administrative system rather than a patient initiative. In this sense, screening is a procedure that identifies asymptomatic cases of diseases or abnormalities that a child may have and have not yet been identified or are unknown. Assistance for additional years to help children achieve hearing abilities is our major aim ^[1].

The improvement of speech, hearing, knowledge, practices and attitude acquisition in children with hearing loss depends on early detection of HL and early use of hearing aids or cochlear implants. In

fact, infants with HL who used a hearing aid or cochlear implant and rehabilitation services a year later developed hearing abilities comparable to those of infants in their age with normal hearing. This was prior to the key period for the development of hearing, which began at approximately six months of age ^[6].

Pediatric nurses play a basic and vital role in educating and teaching or training the parents how to investigate and analysis home safety measures to protect their hearing -impaired children from harm. The pediatric nurse's primary responsibility and main role is to teach parents how to care for their children with HL and to provide them with knowledge and skills at the appropriate time. Because parents may require constant supervision as they adjust to their child's HL diagnosis usually progresses through a number of emotional states, including shock, recognition, denial, acknowledgement, and positive acts. An emotional phase of grieving is anticipated to be after the diagnosis. It's crucial to resolve any anger, sadness, or grief may be experiencing in response to diagnosis, as failing to do so could lead to depression. Parents who are depressed are less attentive to their children's needs and less successful at fostering their children's language and psychosocial development ^[7].

Coaching is one of the few decision making available to aid promote the development of professional ^[8]. This is advantageous to learners, recent graduates, and practitioner nurses. This strategy is a sort of assistance for people who want to recognize their full potential, set goals and ways to accomplish them, as well as advance their knowledge and abilities. Pediatric nurses can strengthen their actual knowledge and gain new skills

through with coaching. The atmosphere that coaches create fosters the improvement of knowledge and skills between the learners [9, 10].

Significance of the study

Hearing is one of the five senses that God has endowed us with, and it is crucial for young children to be aware of their surroundings. As a result, any disruption in this sense may result in delays in speech and schooling as well as have an impact on how well they interact with others. From this point on, parents' knowledge is vital since it aids their kids by allowing for early detection and action that have an impact on their social and physical growth and development. Hearing loss is a neglected chronic otological problem with varying etiology. It is one of the commonest sensory disabilities worldwide and Egypt. The incidence of HI in Egypt reaches 16.02%. The HL is a permanent disability and 75% of those who suffer from it living in the developing countries [7]. Therefore, there is a need to conduct this study on parents to increase their awareness about hearing loss children caring.

Aim of the study

This study aimed to evaluate the effect of a coaching program on parents' awareness about caring of their children with hearing loss through:

- Assessing parents' knowledge, attitude and reported practices about caring of their children with hearing loss
- Design and implement a coaching program for parents about caring of children with

Research hypothesis

- Parents' knowledge, reported practice and attitudes are expected to be improved after receiving coaching program
- Coaching program is expected to have a

positive effect on parents' awareness regarding their children with hearing loss.

Subjects and Methods

Research design

A quasi-experimental design was utilized in this study.

Setting

The study was conducted at Alshamla Audiology clinics of Tanta main University Hospital that located at 1st floor, and Audiology Clinic of International Teaching Hospital that located at 5th floor. These units specialized in determining the degree of hearing, speech training program and providing the management.

Subjects

A convenient sample of 150 parents (mothers or fathers), and their children with hearing impairment, regardless of their demographics.

Tools of data collection

Data was gathered using three tools before, immediately after, and three months after the coaching program's implementation.

Tool (1): Hearing loss knowledge interview questionnaire: It was created by researchers and written in straight forward Arabic on the basis of a review of the scientific literature. It is divided into the following parts:

Part I. It was concerned with traits of:

- Age, sex, education, place of employment, marital status, and parents' sources of information regarding hearing loss.
- Children, including: Age, gender, level of schooling, birth order, and hearing loss severity.

Part II. Parents' knowledge about hearing loss: It was adapted from [11, 2], it featured 28 questions concerning hearing loss, including definitions, types, hearing loss degree, early identification of hearing loss and early detection, causes, clinical

manifestations, risk factors, complications, preventing methods and interventions. It assessed parents' level of knowledge about hearing loss.

Scoring system

According to the answers provided by the parents, a scoring system was used, with (1) awarded for each correct answer and (0) for each incorrect answer. 28 grades make up the questionnaire's total score. The overall of a parent's knowledge will be categorized into the following categories based on the sum of their scores, divided by the total, and converted to percentages:

- High level $75\% \leq 100\%$
- Moderate level $50\% < 75\%$
- Low level $< 50\%$

Tool (2) Parents' reported practice about hearing loss: It was adapted from instructions of [12, 2]: It focuses on parents' practices for caring for their kids who have hearing loss and is divided into 6 parts (46 steps): hearing screening test (7 points), physical practise (3 points), hearing aid care (7 points), hearing aid use (8 points), communicating practices (18 points) and follow-up practices (3 points).

Scoring system:

A scoring system was developed based on the feedback provided by the parents, with each step that was completed receiving a score of (1) and each step that was not completed receiving a score of (0), for a total practices score of 46 grades. The total reported practices by the parents was then added together and converted to a percentage, and was afterwards divided into:

- Satisfactory $\geq 60\%$
- Unsatisfactory $< 60\%$

Tool (3) Parents' attitudes regarding hearing loss scale: It was developed by [13, 7] to evaluate attitudes towards hearing loss.

It included 22 statements about HL children which encompass equality, ability, cultural and linguistic issues. Items were rated on five points Likert scale.

Scoring system

Regarding the parents' responses were assessed on a 5-point Likert scale " The studied parents' attitudes were classified into strongly agree (5), agree (4), slightly agree (3), disagree (2), strongly disagree (1)" severally. The item scores were added up, and the amount was divided by the total number of things. These ratings were turned into percentages.

Consequently the total parents' attitude was categorized into:

- Positive attitude $50\% \leq 100\%$
- Negative attitude $< 50\%$

Operational Design

Three phases made up the operational design for this study, namely preparatory phase, pilot study, and fieldwork.

Preparatory Phase

During this stage, literature on parents' awareness of and concern for children with hearing loss was reviewed. As a result, the data gathering tools for the study were developed. The tools were created under supervision, guidance and experts' opinions.

Content, Face Validity and Reliability:

Three experts in the field of pediatric nursing used test-retest reliability to verify the content validity and application of the material, The questionnaire Alpha Cronbach's reliability test equal 0.84 The checklist's Alpha Cronbach's reliability test equal 0.86.

Pilot Study

To assess the applicability of the developed tools and the clarity of the included questions on hearing loss, a pilot research was conducted on 10% (15 parents) of children with hearing loss who attend the aforementioned settings.

Fieldwork

The actual fieldwork for this study took place over a six-month period, specifically from early September 2022 to late February 2023. The researcher was available for the aforementioned setting shift two days per week. To acquire the essential information for the study, each father or mother underwent an individual interview. The interview with the illiterate parents takes longer because they require more explanation of tool items. According to the research tools, the parents were asked to provide their comments. It took roughly 45 minutes to collect information from each parent. The interviewing questionnaire took an average of 15 minutes to complete, the attitude scale evaluation took 10 minutes, and the parent-reported checklists took 20 minutes. The researchers visited the aforementioned locations three days a week (Saturdays, Mondays, and Wednesdays) from 9.00 a.m. to 2.00 p.m.

Coaching program phases

This program was carried out on five consecutive phases, assessing, developing, implementing, evaluating, and follow-up.

Phase I: An assessment of the pre-coaching program was performed. In order to determine the needs of parents, this phase assessing their knowledge, attitude and reported practices of parent regarding hearing loss in their children.

Phase II: Based on existent parents' need assessment about knowledge, attitude and

practices of caring children with hearing loss program, a coaching programme was created. The theoretical content covered the following items: hearing loss definition, early detection of hearing loss, causes, risk factors, and interventions.

The content of the practical part included the following: The practical procedures of caring of children with hearing loss such as; simple hearing screening, physical therapy and physical exercise, care of hearing aids, use of hearing aids, communicating practices and follow up of all parent practical procedure .

Phase III: Implementation of the program:

Implementation of the coaching program was carried out at the previously mentioned settings. At the beginning of the first session, an orientation of the coaching program and its purpose was presented. Parents were divided into groups, and each group consisted of 8-10 parents approximately. Each session started with a summary about what had been given through the previous sessions and the objectives of the new topic, taking into consideration the use of simple language to suit the level of parents' qualifications. As well, the session ended by a summary of its content and a feedback gained from parents.

The coaching program was delivered over the course of five sessions, with each session lasting between 30 and 45 minutes depending on the requirements of the parents and the dynamics of the group. The theoretical component of the coaching program was provided over the course of three lectures and conversations/discussions, and was then followed by the practical component, which was shown over the course of two sessions using role playing, a

simulator, actual objects, discussions, and brainstorming. Power point presentations and posters were two efficient information-delivery tools employed by the researchers. After the coaching programme was implemented, parents were given a handout to use as a reference.

Phase IV and V: Evaluation phases:

The evaluation phases was done immediately post implementation of the coaching program and at follow up one month later by comparing changes in parents' knowledge, attitudes and practices regarding coaching program for caring of children with hearing loss .

Administrative Design

The directors of the audiology clinics in the Alshamla clinics of Tanta University Hospital and the audiology clinic at International Teaching Hospital received approval through a letter issued by the dean of the nursing faculty at Tanta University. The researchers then met with the directors to discuss the goals and procedures for gathering the data.

Ethical Consideration

Before beginning the investigation, the faculty ethical committee approved the research. Before include the parents in the study, their consent was obtained; a concise explanation was given based on their knowledge level and level of physical and mental preparation. They made sure that all collected data was private and solely used for research. The parents were advised that they could opt to participate in the study or not, and that they might leave the study at anytime.

IV. Statistical Analysis

Using a PC, the data gathered from the study sample was revised, coded, and input. The Statistical Package for Social Sciences

(SPSS) version 22 was used for statistical analysis and computerized data entry. Descriptive statistics were used to show the data as frequencies and percentages. The correlation between variables was examined using the correlation co-efficiency method and the chi-square test (X²) for comparing qualitative variables. At a p-value of 0.05, statistical significance was deemed to exist.

Results:

Table (1) demonstrates that 40% of the studied children their age less than 6 years with a mean age 5.62 ± 1.22 years. Concerning their educational level, 54.7% of them were illiterate & primary education. As regards gender, 58% of them were females. In relation to birth order of children 50% of them were third or more.

Figure (1) shows the degrees of hearing loss, as 36% of children having moderate degree, 30 % severe and 13% profound degree of hearing loss, the mild degree constitute 20% only .

Table (2) illustrates the characteristics of the studied parents. It indicates that, 36.7% and 34.70% ranged between $20 < 25$ and $25 < 30$ years old respectively, with mean age 24.82 ± 3.33 years. Regarding the level of education, more than half (51.3%) of the parents were illiterate & primary grade. According to residence of parents, this table showed that 90% of parents were from rural area and 86.7% of them were working.

Figure (2) reflects the sources of parents' information, as the health care team constitute 40% of the parents' sources of information, followed by other families (30%), then mass media (20%) and friends (10%).

Table (3) portrays that, there are highly statistically significance improvements within parents' knowledge immediately-post

and at follow-up phases of coaching program implementation as regards all knowledge items about hearing loss children caring.

Figure (3) indicates the total knowledge score of the studied parents, the majority of them (75%) had low level of knowledge before the implementation of the coaching programme, which improved to good in 90% immediately post and 85% at the following-up phase of the coaching programme implementation

Table (4): Points out that there are highly statistically significance improvements in parents reported practices immediately post and at follow-up phases of a coaching program implementation as regards all practices items.

Figure (4) illustrates the studied parents' total reported practices score, most of the studied parents (90%) had unsatisfactory level before the coaching program implementation, which improved for most of them (90%) to have satisfactory practices immediately post coaching program

implementation. Furthermore, the same figure shows that, majority of studied parents (85%) had satisfactory level in their total scores of practices in the follow up phase of coaching program implementation with a highly statistically significant difference ($P < .0001$).

Table (5) reveals that, there is an improvement in parents' total attitude immediately after, and at follow up phase of coaching program, the majority (73.3% & 66.7%) respectively of studied parents showed positive attitude toward caring of their children with hearing loss. While, at the pre coaching program implementation, the majority (80%) of them, was negative. Additionally, this data demonstrates a change in parents' overall attitude both immediately following and at follow-up following the execution of the coaching programme, with a highly statistically significant difference ($P < 0.001$).

Table (1): Characteristics of the Studied Children with Hearing Loss (n=150)

Characteristics	No	%
Age/years		
< 6	60	40.0
6 -12	55	36.7
12 < 18	35	23.3
Mean \pm SD	5.62\pm1.22	
Education level		
Illiterate & primary	82	54.7
Preparatory	43	28.7
Secondary	25	16.6
Sex		
Male	63	42.0
Female	87	58.0
Birth order		
First	38	25.3
Second	37	24.7
Third or more	75	50.0

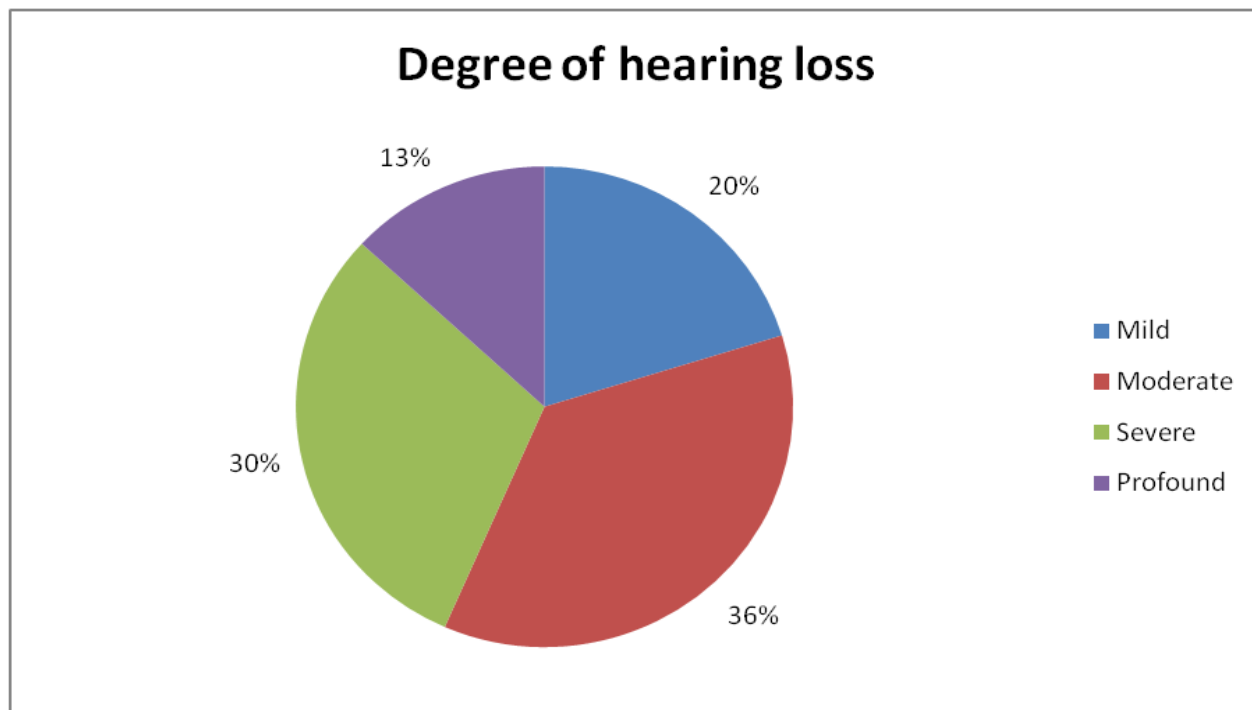
**Figure (1):** Distribution of Children based on the Level of Hearing Loss (n=150)

Table (2): Characteristics of the Studied Parents of Children with Hearing Loss (n=150)

Characteristics	No	%
Age/years		
< 20	19	12.6
20 < 25	55	36.7
25 < 30	52	34.7
≥ 30	24	16.0
Mean ±SD	24.82 ± 3.33	
Educational level		
Illiterate & primary	77	51.3
Secondary	46	30.7
High	27	18.0
Residence		
Urban	60	40.0
Rural	90	60.0
Parents' occupation		
Working	130	86.7
Not working	20	13.3

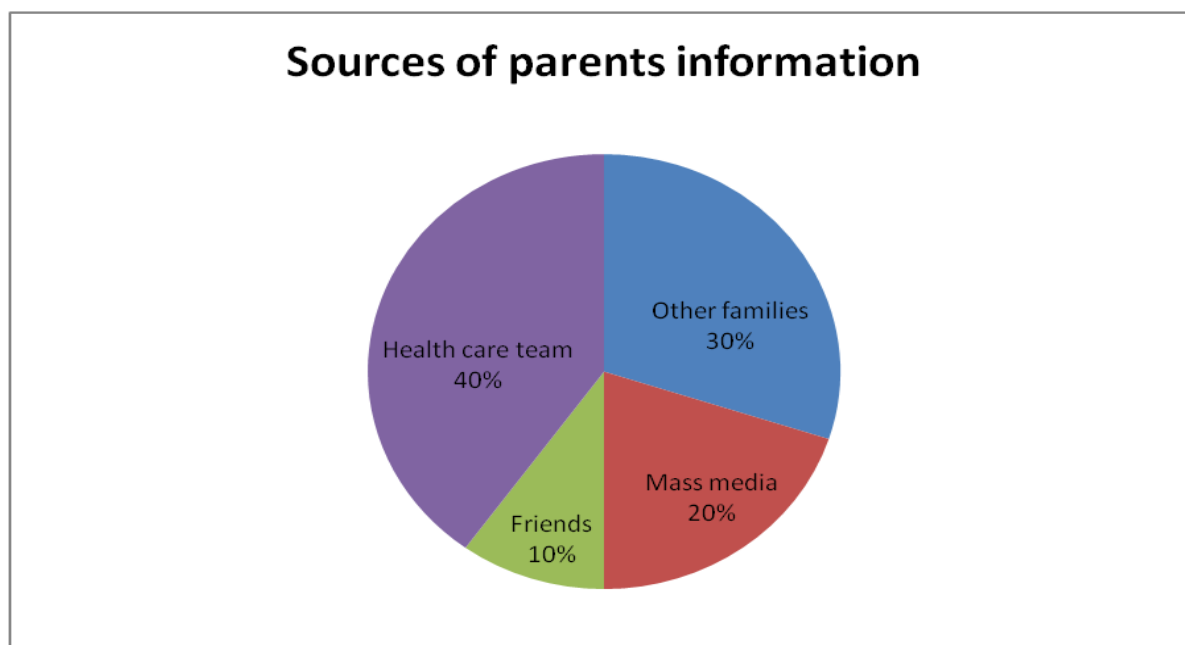
**Figure (2):** Distribution of Parents regarding their Sources of Information about Hearing Loss (n=150).

Table (3): Percentage Distribution of the Studied Parents According to their Knowledge about Hearing Loss (n = 150).

Parents' Knowledge	Pre- coaching program			Post- coaching program			Follow up		
	Poor	Average	Good	Poor	Average	Good	Poor	Average	Good
	%	%	%	%	%	%	%	%	%
Definition of hearing loss	5.0	35.0	60.0	0.0	6.0	94.0	0.0	7.0	93.0
Types	65.0	35.0	0.0	5.0	12.0	83.0	6.0	10.0	84.0
Degree of hearing loss	60.0	20.0	10.0	0.0	5.0	95.0	5.0	10.0	85.0
Causes	75.0	20.0	5.0	5.0	10.0	85.0	6.0	8.0	86.0
Clinical manifestation	25.0	35.0	40.0	0.0	7.0	93.0	0.0	10.0	90.0
Early detection	45.0	40.0	15.0	0.0	7.0	93.0	0.0	10.0	90.0
Preventing methods	70.0	20.0	10.0	4.0	12.0	84.0	7.0	9.0	84.0
Complications	62.0	38.0	0.0	5.0	11.0	84.0	5.0	10.0	85.0
Intervention	53.0	32.0	15.0	0.0	9.0	91.0	0.0	13.0	87.0
T-test P-value	$X^2_1 = 17.8$ pre versus post-a coaching program						P-value <0.001**		
	$X^2_2 = 22.9$ pre a coaching program versus follow -up								
	$X^2_3 = 13.4$ post a coaching program versus follow -up								

<0.001** highly statistically significant

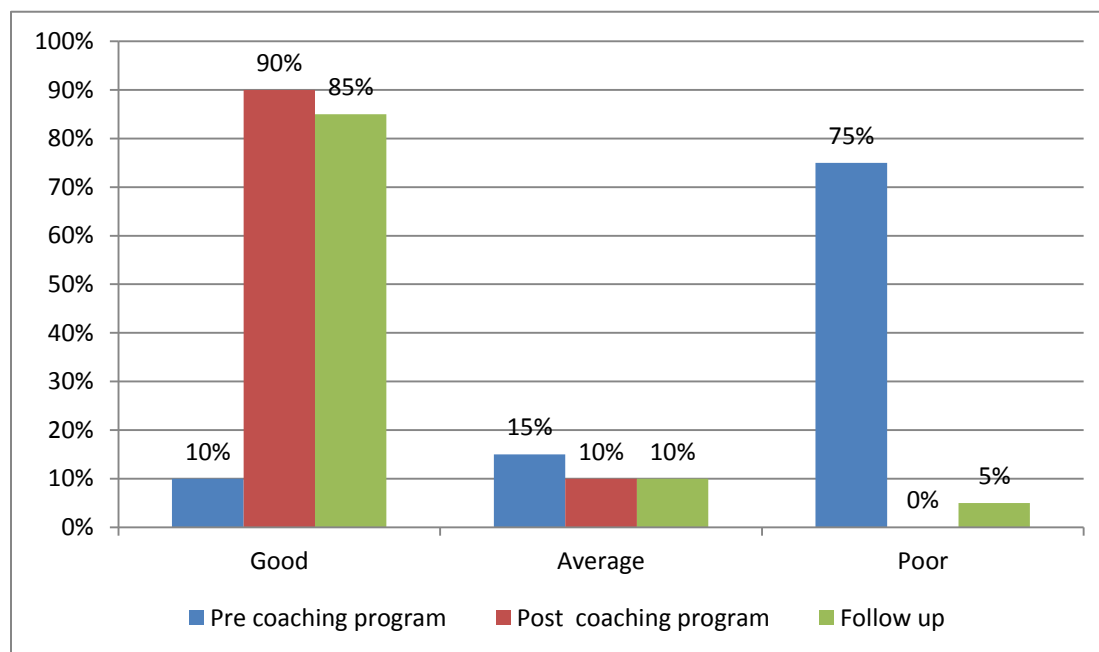
**Figure (3):** Percentage Distribution of Parent Total Knowledge about Hearing Loss throughout the Coaching Program Phases (n= 150).

Table (4): Distribution of Studied Parents according to their reported Practices about Caring of their Children with Hearing Loss throughout the Coaching Program Phases (n = 150).

Parents' Reported Practices	Pre- coaching program		Post- coaching program		Follow up	
	Satisfactory	Unsatisfactory	Satisfactory	Unsatisfactory	Satisfactory	Unsatisfactory
	%	%	%	%	%	%
Simple Hearing screening	10.0	90.0	85.0	15.0	82.0	18.0
Physical Therapy and Physical Practice	5.0	95.0	90.0	10.0	85.0	15.0
Nausea /vomiting relief	65.0	35.0	95.0	5.0	90.0	10.0
Care of hearing aids	70.0	30.0	96.0	4.0	95.0	5.0
Using of hearing aids	75.0	25.0	93.0	7.0	90.0	10.0
Communicating practices	45.0	55.0	92.0	8.0	90.0	10.0
Follow up of parents' practical procedure	40.0	60.0	95.0	5.0	90.0	10.0
T-test	$X^2_1 = 26.6$ pre versus post coaching program					P-value <0.001**
P value	$X^2_2 = 44.2$ pre coaching program versus follow-up					
	$X^2_3 = 20.6$ post coaching program versus follow- up					

<0.001** highly statistically significant

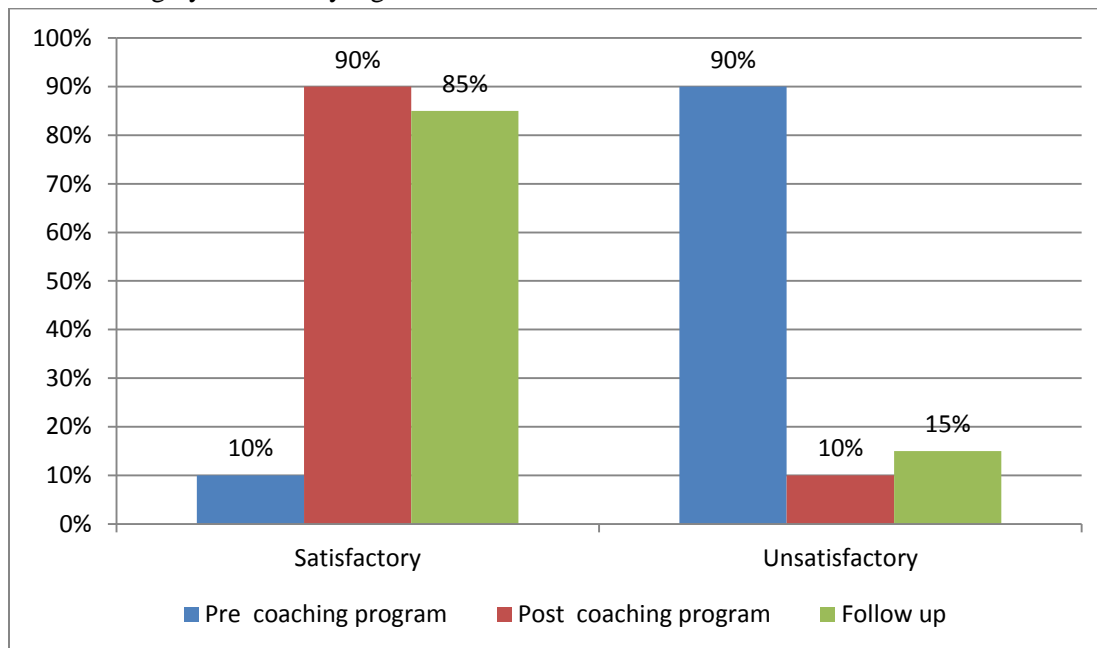
**Figure (4):** Distribution of Parents' Total Practice regarding Caring of their Children with Hearing Loss throughout Coaching Program Phases (n = 150).

Table (5): Total Parents' Attitude Toward Coaching Program about Caring Children with Hearing Loss throughout Implementation Phases (n=150).

Items	Total Attitude					
	Pre coaching program		Post coaching program		Follow up	
	No	%	No	%	No	%
Positive	10	6.7	110	73.3	100	66.7
Indifferent	20	13.3	30	20.0	35	23.3
Negative	120	80.0	10	6.7	15	10.0
Mean ±SD	0.768±0.64		246±1.42		2.12±0.82	
T-test P value	$\chi^2_1 = 15.05$ pre-versus post implementation $\chi^2_2 = 21.66$ pre implementation versus follow up $\chi^2_3 = 12.88$ post implementation versus follow up				P-value < 0.001**	

<0.001** highly statistically significant

Discussion

The current study composed of 150 parents having children suffering from hearing loss. This study aimed to determine the effect of a coaching program on parents' awareness regarding caring of their children with hearing loss.

Regarding parents' information about hearing loss, the present study showed that the most common sources of their information were the health care team, followed by other families and the least sources were mass media and friends. This result contradicted with the result of **Movallali et al., (2015) [14]** who studied "The Effectiveness of Positive Parenting Program (triple P) on Mental Health of Parents of Hearing Impaired Children", and found that other parents of children with hearing loss were the sources of parents' knowledge about hearing loss. This result may be related to a failure of mass media in medical and nursing fields so; there are medical ignorance and lack of awareness about this handicap and its management in the country.

Concerning children understudied based on the level of hearing loss. The present study showed that, less than one third of studied children had severe hearing loss while more than one third of them had moderate and profound hearing loss degree. The result of the current study supported by **Mohamed et al., (2022) [2]** who studied "Assessment Mothers Awareness toward Care of their Children Suffering from Hearing Loss" and reflected that, more than one third of the studied children have moderate and severe while, 23.3% of them have mild hearing loss. But these findings were unsupported by **Ouida, et al., (2016) [7]** about "Assessment of Mothers' Knowledge and Attitude towards their Children Suffering from Hearing Impairment" and confirmed that, more than three quarters of the studied children have bilateral HI and more than half of them have profound HI. This may point that, moderate and severe HI are communal between school-aged children who are hearing loss.

As regards parents' knowledge about hearing loss, the current study portrayed that the majority of parent had low level of

knowledge before the program, and there are highly statistically significant improvement in the parents' knowledge immediately post and at follow-up phases of coaching program implementation as regards all knowledge items about hearing loss. This finding agreed with the findings of the study done by **Eyalati, et al., (2013)** ^[15], entitled “Effects of Parental Educational Level and Economic Status on the Needs of Families of Hearing-Impaired Children in the Aural Rehabilitation Program”, who claimed that the mothers in the study had a limited understanding of HI. This might be due to the parent's lack of knowledge about the nature of the issue, the media's inadequate portrayal of the effects of disabilities, and the inadequate counseling programs at rehabilitation facilities. In addition, **Erbasia, et al., (2019)** ^[16] entitled “ Parental Involvement in the Care and Intervention of Children with Hearing Loss” and who indicates that parental involvement in the intervention of children with hearing loss is multifaceted in nature and incorporates a broad range of behavior and practices. These results have essential implications for the provision of family-centered practices. Concerning the studied parents’ total reported practices score, most of the studied parents had unsatisfactory level of practice before the coaching program implementation, which improved to satisfactory practices immediately post and at follow up phases of coaching program implementation. In the same line, the study done by **Mohamed, et al., (2022)** ^[2] about "Assessment Mothers Awareness toward Care of their Children Suffering from Hearing Loss", revealed that, two thirds of the studied sample give inadequate care practices about their hearing loss children.

Additionally, **Movallali et al., (2015)** ^[14] who confirmed that, positive parenting training is an effective program that can enhance mental health of mothers with hearing impaired children.

Regarding parents' total attitude, there is an improvement in parents' total attitude. The majority of them had positive attitude towards caring of their children with hearing loss at immediate post and follow up phases, while, at the pre-program phase, the majority behaved negatively. This result agreed with the study by **Kumar & Rao, (2015)** ^[18], entitled “Parental Attitudes Towards Children with Hearing Impairment”, who reported that, mothers exhibit less favorable attitudes towards their children with HI. This could be attributed to the parents’ expectation of an ideal child and may also be a reflection of parents’ mourning for their imperfect child.

According to the researcher point of view, the caring of children with hearing loss is a parents' primary duty, parents should be aware of the knowledge, attitude and practice required to care for their children who suffering from HL. This strengthens the contention. Given the current study's main study's findings, it is clear that education and training programs are essential for enhancing parents' understanding, attitudes, and practices regarding caring of children with HL. The outcome of the current study also showed that after the implementation of the coaching program, the parents' knowledge, attitude, practices regarding HL children caring all improved. This may be due to the value and efficacy of training program in strengthening of the parents' knowledge, practice, attitude, all of which are crucial for high-quality parents and successful children outcomes.

Conclusion

Based on the study's findings, it can be concluded that once the coaching programme was put in place, parents' overall knowledge, their reported practices and attitude towards caring of their children with hearing loss was significantly improved.

Recommendations

- Periodical coaching programs should be provided for parents of children with hearing loss for continuous education.
- Coaching programs regarding hearing loss and how to manage it should be made available to parents of children who have hearing impairment.
- A regular evaluation of parents' practice with their hearing loss children should be conducted.
- Children with hearing loss should undergo regular hearing evaluations.
- Mass media should be a key player in raising awareness about hearing loss, as well as ways to prevent and manage it.

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